

Remarks

The presently claimed invention entails dividing a juice stream into three divided streams, treating one of the three divided streams to preferentially remove acids so as to create an acids-enriched juice stream and an acids-reduced juice stream. Each of these streams having an altered acid content is then combined with one of the two remaining divided streams to produce a juice with altered acidity. Thus, combining the acids-reduced juice stream with one of the three divided streams creates an acids-reduced juice and combining the acids-enriched juice stream with the other of the three divided streams creates an acids-enriched juice.

Rejections Under 35 U.S.C. §103

The Examiner rejected claims 41-58 and 61 as obvious in view of Black (U.S. Patent 5,403,604) combined with Puri Japanese Patent Application No. 18971 in Puri et al. U.S. Patent No. 4,439,458 ("the '458 application") or the '458 application taken with Dechow. Applicants respectfully traverse this rejection.

It is true, as the Examiner explains, that Black describes generating a high sugar juice fraction and a low sugar juice fraction. The Examiner goes on to state that "claims 41 and 45 differ from the reference [Black] in the step of combining the acid-reduced juice stream with a second juice stream to make an acids reduced fruit juice. However, the reference discloses that it is known to add the high Brix/acid ratio juice to juices to modify the Brix/acid ratio to desired levels." The Examiner also argues that the Puri Japanese application, Puri '458, and Dechow et al. teach mixing acid reduced juice with untreated juice. The Examiner concludes that "it would have been obvious to add treated juice to a juice stream to make a high acid or low acid enriched fruit juice product in the process of Black et al. because the secondary references disclose that it is known to blend low acid juices with other juices and, and Black discloses that it is known to control the amount of acid in a juice stream by using an NF membrane which controls the acid permeability to give the desired result"

First, while it is true that Black discloses a "low B/A ratio juice" and a "high B/A ratio juice" at column 6, lines 24-49 created by combining a "low sugar stream" with UF retentate and

by combining a "high sugar stream" with UF retentate. However, as can be seen in the Table at the bottom of column 6, the low sugar juice and the high sugar juice have the same total acid level, 0.79%. Thus, it appears that that sugars to acids ration is altered, but the acids content is not. As for Puri Japanese application, Puri '458, and Dechow et al., as explained previously, none of these reference teach treating a fruit juice stream to generate both an acids enriched fraction and an acids reduced fraction. Indeed, these references only teach generating an acids-reduced juice fraction.

Second, the Examiner has ignored the limitation of step (a) in claims 41 and 50 as well as the related limitations of steps (d) and (e) in claims 41 and 50. Step (a) requires dividing a juice stream into three separate streams: first stream, a second stream, and a third stream--prior to treating one of the streams (the first stream) to create an acids-reduced stream and an acids-enriched stream. Steps (d) and (e) require that one of the three separate streams--the second stream--be combined with the acids-reduced stream and that another of the three separate streams--the third stream--be combined with the acids-enriched stream.

No combination of the cited references can be seen as suggesting the step of dividing a juice stream into three separate streams (step (a) of claims 41 and 50) prior to treating one of the streams to create an acids-reduced stream and an acids-enriched stream. This step confers significant advantages on the overall process because it allows control over how much of the juice is treated to create the acids-reduced and acids-enriched streams versus how much is left untreated to combine with the acids-reduced and acids-enriched streams (see, e.g., page 5 of the present specification). In fact, the method allows control over the relative amounts of juice in the second stream and the third stream.

Moreover, no combination of the cited references can be seen as suggesting that an acids-reduced fraction be combined with one of three divided juice streams (step (d) of claims 41 and 50) and that an acids-enriched juice fraction be combined with one of three divided juice streams (step (e) of claims 41 and 50). These steps result in the use of the entire original undivided juice stream to produce an acids-reduced juice and an acids-enriched juice. This, combined with the control afforded by the division of the original juice stream into three streams

as required by step (a) of claims 41 and 50, results in a process that allows control yet reduces waste.

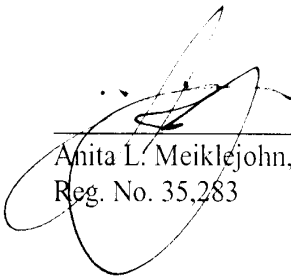
The Examiner rejected claims 59 and 60 under 35 U.S.C. as obvious in view of the references noted above and further in view of Mantius et al. 2002/0197380 A1 ("the Mantius application"). The cited application was published on December 26, 2002, after the August 21, 2001 filing date of present application. In addition, the Mantius application is not "by another" since the named inventors of both applications are Mantius and Rose. Thus, the Mantius application cannot be cited as prior art against the present application.

In view of the forgoing, applicants request that the rejections under 35 U.S.C. §103 be withdrawn.

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Respectfully submitted,

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